

1-10 Solve each equation. Round your answers to three decimal places if necessary.

1. $32\left(\frac{1}{4}\right)^{x/3} = 2$

6. $3 + 2e^{-x} = 6$

2. $3 \cdot 4^{x/2} = 96$

7. $\frac{1}{64} = 256^{x-2}$

3. $\log_3(2x + 4) = \log_3 x$

8. $\log(x - 2) + \log(x + 5) = 2\log 3$

4. $\log x - \frac{1}{2}\log(x + 4) = 1$

9. $\frac{1}{2}\ln(x + 3) - \ln(x) = 0$

5. $\frac{500}{1+25e^{0.3x}} = 200$

10. $2e^{2x} + 5e^x - 3 = 0$

*11-15 Follow the directions for each of these review problems. Do them without looking at your notes!

11. Find the amount accumulated after investing \$2400 a year for 30 years at an interest rate of 9.3% compounded yearly.

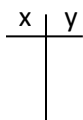
12. Rewrite this pair of numbers as an exponent with the other number's base. 64 and $\frac{1}{32}$

$$\frac{1}{32} \quad \square \quad 64 \quad \square$$

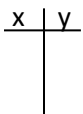
13. Simplify. $\log_{125} 5$

14. Graph. $f(x) = 2^{2x-4} + 1$

Parent function _____



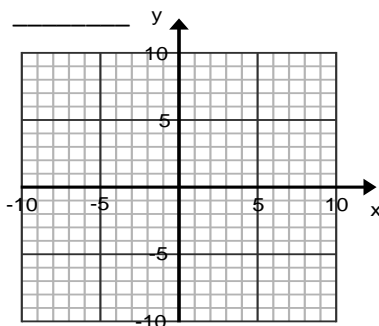
Description of
transformation



y-int _____ asymptote _____

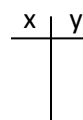
Domain _____

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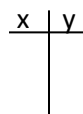


15. Graph. $f(x) = 2e^{2x} + 1$

Parent function _____



Description of
transformation



y-int _____ asymptote _____

Domain _____

Range _____

